UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF
AIR AND RADIATION

James M. Lents, Ph.D.
Executive Officer
South Coast Air Quality Management District
21865 E. Copley Drive
Diamond Bar, CA 91765

Dear Dr. Lents:

This letter responds to your recent request for guidance regarding EPA's interpretation of several provisions of the federal Clean Air Act. We understand that these interpretations are key to your assessment of the feasibility of a stationary source emissions trading program for the South Coast air basin.

First I want to note how pleased I am with the fruitful working relationship our staffs have developed through the meetings of the Technical Working Group that we established when we met last Spring. I believe we have made real progress on the issues raised in your letter and other aspects of how your program could be designed. As you continue to develop the concept of marketable permits (which we understand is now called the Regional Clean Air Incentives Market - RECLAIM), I hope this group will continue to meet and resolve issues that bear on the approvability of the program.

The attached response to your specific questions is EPA's interpretation of how the federal Clean Air Act would apply to the RECLAIM program as we understand the current proposal. EPA encourages areas to be creative and develop innovative programs such as RECLAIM. To this end, our interpretations reflect a fundamental principle we are is using to guide the implementation of the new amendments: to the extent that projected emissions reductions will be both quantifiable and enforceable, and to the extent permissible by law, EPA will be flexible and allow areas to demonstrate that their particular control strategies are equivalent to the specific requirements of the statute.

We appreciate the recognition in your letter that RECLAIM must result in quantifiable and enforceable emission reductions. We agree that it will be necessary for you to demonstrate that RECLAIM will lead to such results and emphasize that our responses to your questions are predicated on a successful demonstration. To facilitate the resolution of these issues, we have also attached a discussion of the elements we believe will be necessary to make RECLAIM quantifiable and enforceable. We look forward to working with your staff to develop the details to implement this aspect of your program.

Sincerely,

William G. Rosenberg
Assistant Administrator for
Air and Radiation

Attachments

cc: James M. Strock, Secretary for Environmental Protection
California Environmental Protection Agency

Jananne Sharpless, Chairwoman
California Air Resources Board

Response to South Coast Questions

RACT

May the RACT requirement be complied with by aggregating emissions from all stationary sources?

May emissions from mobile sources be aggregated with emissions from stationary sources in order to demonstrate compliance with the RACT requirement? If so, are there any limitations upon such aggregation?

Response: Emissions may be aggregated, for purposes of meeting the RACT requirement, by sources covered by a RACT requirement. These include sources covered by a CTG (issued either before or after enactment of the Clean Air Act Amendments of 1991) or major sources (in extreme areas, this includes sources with the potential to emit 10 ton or more per year of NOx or VOC). Emissions may not be aggregated, for purposes of meeting the RACT requirement, between these RACT sources and other stationary (non-RACT), mobile or area sources.

The universe of CTG and major sources in the South Coast must, in the aggregate, achieve the equivalent of RACT level emission reductions on a daily basis. As long as they continue to do so, a RACT source may participate in a bubble or trading system with stationary sources not covered by RACT, mobile and area sources. The state will be required to demonstrate that, despite any trading among RACT and non-RACT sources, the SIP achieves the equivalent of the required RACT-level daily emission reductions from the universe of CTG and major sources by the applicable compliance dates.

Must RACT requirements be periodically made more stringent as new control technology develops?

Response: RACT is determined when: (1) EPA develops a CTG, the State promulgates SIP limits based on the CTG, and EPA approves the SIP limits, or (2) the State promulgates a SIP that includes an alternative to CTG guidelines (which EPA terms "alternate" or "alternative" RACT), or, in the case of non-CTG major sources, includes source- or category-specific RACT requirements, and EPA approves those SIP requirements. After EPA has approved RACT requirements in specific SIPs, EPA may review specific RACT requirements -- based on more current information concerning control effectiveness, costs, etc...-- through the same process. For example, EPA

may review and revise the CTGs, and require SIP revisions based on the updated CTGs. However, the statute contains no requirement that EPA initiate the process of updating RACT requirements for any source as soon as EPA receives information that could be construed to suggest that the existing requirements may no longer be RACT.

The District may desire to develop a program which requires each source subject to a federal control techniques guideline (CTG) to comply with such CTG. May the District demonstrate compliance with a CTG that establishes a concentration limit by imposing a mass emissions limit which results in an equivalent level of control?

Response: As a legal matter, EPA has broad discretion in defining RACT. Accordingly, EPA has the authority to redefine RACT in terms of mass emissions limits instead of emission rate limits or accept demonstrations of equivalency. As indicated in our response to the question of RACT aggregation above, EPA is open to demonstrations of equivalency to source-specific concentration limits.

Attainment Demonstration

Must each emissions trade be subject to spatial restrictions, or would it be permissible to establish a program which merely tracks changes in location of emissions and imposes remedial measures if shifts occur which might impact attainment?

Must each emissions trade be examined for changes in the reactivity of emissions, or would it be permissible to establish a program which merely tracks changes in reactivity and imposes remedial measures if increases in reactivity occur which might affect attainment?

Response: Section 182 (c)(2)(A) requires ozone nonattainment areas classified Serious or above to develop an attainment demonstration -- showing attainment by the year 2010 (for extreme areas) -- based on photochemical grid modeling (or the equivalent). This type of modeling incorporates both the location of emission sources and the reactivity of different VOC emissions.

Therefore, the South Coast will need to project the impact of the trading program on both the spatial distribution of emissions and the reactivity of VOC emissions in order to develop its attainment demonstration. Since different outcomes of the trading market may affect the spatial distribution of emissions and/or the reactivity of VOC emissions, the attainment

demonstration should be supported with an analysis of the sensitivity of the attainment strategy to various trading outcomes.

No spatial or reactivity restrictions must be imposed on trading as long as the South Coast agrees, as part of its SIP, to: 1) establish a program to track over time changes in the spatial distribution of emissions and the reactivity of VOC emissions, 2) remodel the effect of changes in the spatial distribution or reactivity of emissions on the attainment strategy (periodically or triggered by pre-established thresholds being exceeded), and 3) implement remedial measures if modelling shows that changes have occurred which might affect the attainment strategy.

Assuming that attainment on a daily basis can be demonstrated statistically, may the program employ a mass emission limit for ROG which is based upon cumulative or average emissions over a period longer than one day, e.g., 30 days?

Response: Yes. A time-averaged mass emission limit must continue to meet or be consistent with the statutory requirements of: 1) RACT equivalence, 2) periodic emissions reductions to satisfy reasonable further progress, and ultimately 3) attainment of the ozone NAAQS on a daily basis.

Currently, EPA generally considers instantaneous, hourly, or daily emission rate limits to be RACT. If the South Coast can demonstrate that a mass emission limit averaged over a longer period will produce equivalent emission reductions on a daily basis, EPA would allow longer-term averaging for RACT requirements.

The ozone NAAQS is, in effect, a daily standard. EPA has long been concerned that longer-term averaging could allow sources to increase emissions on one particular day, and thereby jeopardize attainment on that day. However, EPA is open to longer than daily averaging if the South Coast can demonstrate, presumably through statistical methods, that requirements to demonstrate attainment and reasonable further progress will be equally well satisfied on a typical summer day basis (as defined in EPA guidance documents).[1] We understand that the South Coast is considering whether and how to integrate various safeguards into the RECLAIM program which may aid in making such equivalency demonstrations.

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[1] The determination that an area has complied with the reasonable further progress requirements will made upon a demonstration (to the satisfaction of the Administrator) that the area's SIP submittals meet the requirements specified in the federal Clean Air Act for periodic emission reductions including any prescribed requirements (e.g. Clean-Fuel Vehicle Program). (182(b)(1), and (c)(2)(A) and (B))

EPA expects these demonstrations to be substantial exercises. We are currently examining the elements that should be part of an equivalency demonstration. We plan to offer guidance on this issue as we complete our examination and as the South Coast program develops more fully.

Do the provisions of the 1986 EPA Emission Trading Statement which establish requirements for baselines and 20% excess emissions reductions apply to the Marketable Permits Program?

Response: At present, EPA policy which guides decisions regarding emission trades is embodied in the Emission Trading Policy Statement (ETPS). The ETPS would therefore be used to assess the approvability of a Marketable Permits Program (now called RECLAIM). However, the ETPS gives the South Coast the opportunity to show that a general principle of the ETPS does not apply to their particular circumstance or could be satisfied using approaches other than those described within the provisions of the ETPS.

When taken as a whole, the proposed requirements in RECLAIM, such as an emissions cap and declining balance emission limit, could be used as part of a showing that the general principles of the ETPS will be met. We are currently examining the elements that should be part of such a showing. We plan to offer guidance on this issue as we continue to evaluate the ETPS in light of the 1990 Clean Air Act Amendments, develop the economic incentive rules required by the Amendments, and as the South Coast program develops more fully.

New Source Review

Must each new or modified major stationary source comply with the greater than one-to-one offset ratio requirements of Section 182(e), or may a program not incorporating such ratios be approved if it achieves equivalent emission levels through other means? If equivalency is allowed, may it be demonstrated using reductions from all sources, including existing sources, or only through limitations applicable to new and modified sources (e.g. zero offset threshold)? Note: We intend to require all new and modified sources and discrete units to comply with LAER.

Response: EPA can approve a program that does not require individual sources to secure offsets in the ratios mandated by section 182(e) of the federal Clean Air Act so long as the South Coast ensures that an equivalent total of creditable emission reductions are secured from other reduction strategies. Section 173(c) places a number of restrictions on the types of emissions reductions which can be used for offsets -- including requirements that

offsetting reductions be enforceable, in effect at the time the new source commences operations and will result in reductions of "actual" emissions in the appropriate amount.

However, the federal Clean Air Act does not require that offsets be secured by the new source. Rather, any portion of the necessary offsets may be generated by the efforts of the local air quality planning agency. Thus, each time a new source commences operations, the RECLAIM program must have already generated sufficient emission reductions such that the South Coast can demonstrate at that point in time that the program has secured sufficient excess emissions reductions to offset the source's new emissions at the mandated ratio. If the source itself is only held responsible for securing emission reductions in an amount equal to its new emissions (a 1:1 ratio), the South Coast plan must generate sufficient reductions to cover the extra reductions required by the act in section 182(e) (a total offset ratio of 1.5:1 in extreme areas or 1.2:1 if the South Coast requires BACT on all existing major stationary sources).

Section 173(c)(2) of the federal Clean Air Act limits offsets to emission reductions not"otherwise required by this Act." EPA staff will be pleased to assist the South Coast in its efforts to identify the specific types of emission reductions that could be available for offsets.

Does EPA policy requiring shutdown credits to be contemporaneous apply to trades for new or existing sources under the Marketable Permits Program?

Response: EPA's current regulations limit the use of shutdowns as credits for the purpose of offsets if the State does not have an approved attainment demonstration. Specifically, without an approved attainment demonstration, 40 CFR 51.165(a)(3)(ii)(C) limits shutdown credits to those situations where the shutdown occurs after the date the source seeking to use the credit submits its NSR permit application or where the new unit replaces the shutdown unit. The South Coast does not currently have an approved attainment demonstration and thus, for purposes of offset credits, this regulation would apply to the RECLAIM program.

Since the promulgation of this regulation, the amendments to the federal Clean Air Act provided South Coast with a new attainment deadline and periodic emission reduction and specific control technology requirements. Further, EPA is aware that the RECLAIM program is intended to be a comprehensive regulatory program for the South Coast and will be part of an ozone attainment plan. Under this circumstance, EPA would be willing to consider, during its review of the RECLAIM program, a regulatory exception

which would allow South Coast to use shutdown credits to the same extent as a jurisdiction with an approved attainment demonstration.

Would federal new source review requirements be triggered if a source subject to the RECLAIM program applies to raise its facility-wide emissions limit solely due to an increase in rate of production or hours of operation?

Response: In general, the federal Clean Air Act specifies that a physical or operational change that results in an increase in emissions constitutes a "modification" and triggers new source review. (Sections 111(a)(4) and 171(4)) However, EPA regulations exclude from the definition of physical or operational change "[a]n increase in the hours of operation or in the production rate, unless such change is prohibited under any federally enforceable permit condition." 40 CFR 51.165(a)(1)(v)(C)(6) The regulation further specifies that the types of permits that might limit this exclusion include all types of NSR permits (whether issued by EPA or a state) issued under programs that are intended to fulfill federal NSR requirements. Thus a mere increase in production rates or hours of operation that does not exceed existing NSR permit limits does not trigger new source review. Such a source would only need to purchase additional emission credits in the appropriate amount under a program such as RECLAIM. Conversely, increases in production rates or operating hours that cannot be accommodated under the existing federally-enforceable new source review permit do not qualify for this exclusion and would trigger new source review even if the source purchased sufficient additional emission credits.

Enforceability Considerations

Readily Ascertainable Emission Limits

An essential element of an enforceable trading program is that the emission limits to which each facility is subject be readily ascertainable at all times. This will require, inter alia, an authoritative, reliable repository of all information concerning emission trades, in addition to reliable information regarding the default emission limits (i.e., the emission limits in the absence of trades) for each facility. We understand that the South Coast's current proposal is for this latter information to be contained in each facility's Title V operating permit.

Emission Quantification Methodologies

We believe that it is necessary for any emission control program that is based on facility-wide, time-averaged mass emissions caps to have credible, replicable and workable emission quantification methodologies. Ideally, the methodologies used to determine source emissions on an ongoing basis should be the same as those used to determine the baseline emissions. To the extent this is infeasible to achieve in practice, an acceptable procedure for correlating baseline and subsequent emissions must be developed.

EPA understands that the South Coast plans to develop emission quantification methodologies through a protocol working group (discussed below) including EPA and other interested parties. Further, we understand that the South Coast may wish to begin by assessing existing emissions-estimation procedures currently employed by sources to calculate annual permit fees. EPA looks forward to working with the South Coast and other parties to determine the extent to which the District's existing procedures for calculating permit fees are credible, replicable and workable, and to develop such additional or alternative methodologies as may be necessary.

Monitoring, Recordkeeping and Reporting (MRR) Requirements

We believe that RECLAIM must provide for sufficient monitoring and recordkeeping requirements to support whatever specific emissions quantification procedures are put into place. There must also be reporting provisions that require information submittals on a sufficiently frequent basis. It is our position, in light of the critical importance of monitoring, recordkeeping and reporting procedures to the integrity of a trading program, that facility owners not be permitted to change such procedures without prior approval as a permit modification.

Enforcement Sanctions

There must be adequate enforcement consequences for noncompliance with emission limits and with monitoring, recordkeeping and reporting (MRR) requirements. This includes both federal and state enforcement sanctions. The enforcement system developed for RECLAIM must preserve the level of deterrence embodied in the existing federal, state and local regulatory systems.

Penalties for Violation of Emission Limits: The existing regulatory system provides for enforcement against noncompliance with emission limits at both the federal and local levels. The statutory maximum penalties under the federal Clean Air Act are $25,000 per day per source in violation. To preserve the existing level of deterrence under the federal Clean Air Act, RECLAIM must define violations of emissions caps in such a way that these violations will translate into sufficient numbers of source-days of violation. We note that federal enforceability of the emission caps presupposes that the emission limits are made part of the SIP and/or the facility's Title V operating permit. RECLAIM must also ensure that the penalties collectible by the South Coast under local law create a deterrent effect comparable to that of the existing regulatory system. Using the acid rain program as an example, a predetermined penalty based on the amount of an exceedance is one possible approach, provided the predetermined amounts are sufficiently large.

We believe that facility owners should be required to develop enforceable compliance plans as a remedial measure in those cases where a facility has exceeded its emission cap for a given averaging period. By "compliance plan", we mean a comprehensive statement of how each emissions source within the facility will be operated in order to ensure compliance with the facility's overall emissions cap. Compliance plans, as we envision them, would include appropriate schedules for implementing additional emissions control equipment or other procedures at a sufficient number of emissions sources to bring the overall facility into compliance.

Penalties for Violations of MRR Requirements: Compliance with MRR requirements is critical to the integrity and success of an emission control program which relies on declining emission caps to achieve emission reductions. RECLAIM must establish a regulatory structure which clearly and effectively deters inadequate or improper monitoring, recordkeeping and reporting. To ensure compliance, it is necessary that there be effective penalties, at both the federal and local level, for violations of MRR requirements. RECLAIM must incorporate both civil and criminal sanctions for violations of requirements per se and must include a mechanism for determining facility emissions when adequate MRR data is not available. These same principles are embodied in the federal acid rain trading program.

On the civil side, EPA believes that RECLAIM should be structured so that monitoring and recordkeeping requirements can be enforced on a daily basis, both at the federal and local levels. We believe that failure to properly perform monitoring and recordkeeping should subject a facility owner to a separate penalty for each emissions source

and for each day that the violation occurs. In cases where the impropriety is of a systematic nature, monitoring and recordkeeping should be presumed to have been improperly performed, for all days for which the facility owner fails to carry the burden of demonstrating, by clear and convincing evidence, that prior days of monitoring and recordkeeping in the same emissions averaging period were performed properly.

On the criminal side, Section 113 (c)(2) of the federal Clean Air Act allows for federal criminal sanctions in cases where monitoring and/or recordkeeping is knowingly performed in an improper manner or not at all, provided that the MRR requirements were imposed under the SIP and/or the Title V operating permits. RECLAIM must impose MRR requirements in a manner that preserves the ability to impose criminal sanctions at the federal level. The extent of the South Coast's current legal authority to proceed criminally against violators of MRR requirements is not clear to EPA. We believe that, in order to ensure that MRR requirements are routinely complied with, the South Coast must have authority to readily and expeditiously invoke criminal sanctions for violations of MRR requirements warranting criminal treatment. EPA would support the South Coast in seeking enhancements to its current criminal authorities if any such are necessary to achieve the foregoing objective.

Finally, RECLAIM must contain a mechanism for determining facility emissions when violations result in the problem of missing, inadequate or erroneous monitoring and recordkeeping data. This mechanism must ensure that facility owners have a strong incentive to properly perform monitoring and recordkeeping in the first instance. We believe that RECLAIM should provide that the emissions from each source for each day on which monitoring or recordkeeping data is missing, inadequate or erroneous should be presumed to be the maximum emissions which the source was capable of generating for the day in question, subject to a demonstration by the facility owner, by clear and convincing evidence, that the emissions did not exceed some lesser amount.

Protocol and Enforcement Sanctions Workgroup

We understand that the South Coast intends to set up one or more workgroups to work on protocols (emissions quantification methodologies and MRR requirements) and enforcement sanctions issues. This is a very welcome and creative development. EPA will be pleased to work with your staff and other parties to develop federally-approvable program elements. We look forward to hearing more about the plans for this work in the near future.